

Claims

1. An apparatus for engaging photographic equipment to a support, said apparatus comprising:
 - (a) a member defining a channel having a first side wall capable of lateral movement with respect to a second side wall;
 - (b) a lever capable of causing said lateral movement; and
 - (c) a substantially compressible member operably interconnected between said lever and said first side wall.
2. The apparatus of claim 1 where said lever is a cam lever.
3. The apparatus of claim 1 where said substantially compressible member is a spring
4. The apparatus of claim 3 where said spring comprises a series of Belleville washers.
5. An apparatus for engaging photographic equipment to a support, said apparatus comprising:
 - (a) a member defining a channel having a first side wall capable of lateral movement with respect to a second side wall between a first location and a second location, where said second location is spaced further from said second side wall than is said first location; and
 - (b) a lever capable of causing said lateral movement and moveable between a first position associated with said second location and a second position associated with said first location, said second location being an over-center detent.
6. The apparatus of claim 5 including a substantially compressible member operably interconnected between said lever and said first side wall.

7. The apparatus of claim 6 where said substantially compressible member maintains said lever in said detent position.

8. An apparatus for engaging a photographic equipment to a support, said apparatus comprising:

(a) a member defining a channel having a first side wall capable of lateral movement with respect to a second side wall between a first location and a second location, where said second location is spaced further from said second side wall than is said first location;

(b) a lever capable of causing said lateral movement and moveable between a first position associated with said second location and a second position associated with said first location; and

(c) a force generating member capable of applying a force to said first side wall and said lever where said force increases when said lever is in said first position and is moved towards said second position.

9. The apparatus of claim 8 where said force generating member is a compression spring.

10. The apparatus of claim 8 where said compression spring comprises a plurality of Belleville washers.

11. An apparatus for engaging photographic equipment to a support, said apparatus comprising:

(a) a first member defining a channel having a first side wall capable of lateral movement with respect to a second side wall;

(b) a second member capable of causing said lateral movement and moveable between a first position and a second position;

(c) a third member capable of applying force to said first side wall and said second member where said force increases when said second member is in said first

position and is moved towards said second position and said force increases when said second member is in said second position and is moved towards said first position.

12. The apparatus of claim 11 where said second member is moveable to an intermediate position between said first position and said second position and where said force decreases when said second member is moved from said intermediate position towards either said first position or said second position.

13. The apparatus of claim 12 where said second member has a range of motion from said first position to said second position and said intermediate position is located between 50 percent and 90 percent of said range of motion.

14. The apparatus of claim 12 where said second member has a range of motion from said first position to said second position and said intermediate position is located between 60 percent and 90 percent of said range of motion.

15. The apparatus of claim 12 where said second member has a range of motion from said first position to said second position and said intermediate position is located between 70 percent and 90 percent of said range of motion.

16. The apparatus of claim 12 where said second member has a range of motion from said first position to said second position and said intermediate position is located between 80 percent and 90 percent of said range of motion.

17. An apparatus for engaging photographic equipment to a support, said apparatus comprising:

- (a) a member defining a channel having a first side wall capable of lateral movement with respect to a second side wall;
- (b) a lever capable of causing said lateral movement and moveable between a first position and a second position and through an intermediate position;

(c) a force generating member that capable of applying force to said first side wall and said lever where said force increases when said lever is moved from said first position towards said intermediate position and said force increases when said lever is in said second position and is moved towards said intermediate position.

18. The apparatus of claim 17 where said force is at a maximum at said intermediate position.

19. The apparatus of claim 18 where said lever has a range of motion from said first position to said second position and said intermediate position is located between 50 percent and 90 percent of said range of motion.

20. The apparatus of claim 18 where said lever has a range of motion from said first position to said second position and said intermediate position is located between 60 percent and 90 percent of said range of motion.

21. The apparatus of claim 18 where said lever has a range of motion from said first position to said second position and said intermediate position is located between 70 percent and 90 percent of said range of motion.

22. The apparatus of claim 18 where said lever has a range of motion from said first position to said second position and said intermediate position is located between 80 percent and 90 percent of said range of motion.

23. An apparatus for engaging photographic equipment to a support, said apparatus comprising:

(a) a member defining a channel having a first side wall capable of lateral movement with respect to a second side wall;

(b) a lever capable of causing said lateral movement and moveable between a first position and a second position and through an intermediate position;

(c) a force generating member capable of applying force to said first side wall and said lever, where said force increases when said lever is moved from said intermediate position towards said second position and said first side wall does not move with respect to said second side wall when said lever is moved from said intermediate position to said second position.

24. An apparatus for engaging photographic equipment to a support, said apparatus comprising:

(a) a member defining a channel having a first side wall capable of travel with respect to a second side wall from a first location to a second location in response to actuation of an actuator, said first side wall capable of remaining in said second location without further actuation of said actuator;

(b) said actuator being capable of causing said lateral movement by transmitting a force to said first side wall where said force increases over a major portion of said travel, said force varies over an interval from a first time to a second time while said second side wall remains in said second location, said force reaches a maximum value between said first time and said second time, and said force at said second time is greater than said force at said first time.

25. The apparatus of claim 24 where said actuator is a lever.

26. The apparatus of claim 25 where said lever is capable of movement between a first and a second position through an intermediate position, said first position is associated with said first location and said intermediate position through said second position is associated with said second location and said interval.

27. The apparatus of claim 24 where said force increases over at least 65% of said travel.

28. The apparatus of claim 24 where said force increases over all of said travel.

29. An apparatus for engaging photographic equipment to a support, said apparatus comprising:

- (a) a member defining a channel having a first side wall capable of lateral movement with respect to a second side wall;
- (b) a lever capable of causing said lateral movement and movable between a first position and a second position, said lever engaged on a side of said member, said side defining opposed first and second corners; and
- (c) a handle portion of said lever where said handle portion extends beyond said first corner when in said first position and extends beyond said second corner when in said second position.